

IN THE CLAIMS:

The currently pending claims are provided below.

Please cancel claims 1 and 10 without prejudice or disclaimer of the subject matter therein.

Please amend the claims as follows:

1. (Cancelled)
2. (Currently Amended) A network as claimed in claim [[1]]8, wherein said control channels are to be used to prioritize command processing, and each control is to be assigned with a different priority by one of the nodes that is en-queuing the commands to be executed based on the quality of service desired.
3. (Original) A network as claimed in claim 2, wherein said first plurality of FIFO queues include a high priority FIFO queue provided to queue commands for urgent traffic, a low priority FIFO queue provided to queue commands for normal traffic, and another FIFO queue provided to queue data for data movement operations.
4. (Currently Amended) A network as claimed in claim [[1]]8, wherein said data is transmitted in groups of cells with each cell having a header utilized for indicating whether the cell is transmitted in a priority order.

5. (Previously Presented) A network as claimed in claim 4, further comprising a multi-stage switch which comprises a plurality of different routes to connect said first node and said second node for data movement operations.

6. (Previously Presented) A network as claimed in claim 4, wherein each of said first node and said second node comprises one or more channel adapters configured with a multiplexing function based on a priority order to multiplex and transmit back to back cells of the same priority from multiple FIFO queues through assigned control or data channels.

7. (Previously Presented) A network as claimed in claim 2, wherein said data is spread between multiple data channels to prioritize data processing while concomitantly to decrease latency and increasing bandwidth during said data movement operations.

8. (Currently Amended) A network comprising:

a first node comprising a first plurality of first-in, first-out (FIFO) queues arranged for high priority to low priority data movement operations; and

a second node operatively connected to said first node by multiple control and data channels, said second node comprising a second plurality of FIFO queues arranged in correspondence with said first plurality of FIFO queues for high priority to low priority data movement operations via said multiple control and data channels; and

an I/O transaction is to be accomplished by one or more control channels and data channels to move commands and data separately between said first node and said second node during said data movement operations, in the order from high priority to low priority;

~~A network as claimed in claim 1, wherein~~ said first node and said second node ~~[[are]]~~ being channel endpoints of the network implemented in compliance with the “*Next Generation Input/Output (NGIO) Specification*”.

9. (Original) A network as claimed in claim 8, wherein said multiple control and data channels are directly supported by the “*Virtual Interface (VI) Architecture Specification*” and the “*Next Generation Input/Output (NGIO) Specification*” for multiple priorities of traffic to allow for varying types of information to pass between endpoints with varying precedence.

10. (Canceled)

11. (Currently Amended) A network arrangement as claimed in claim [[10]]16, wherein said control channels are used to prioritize command processing, and each control channel is assigned with a different priority by one of the ~~nodes~~ systems that is en-queuing the commands to be executed based on the quality of service desired.

12. (Original) A network arrangement as claimed in claim [[10]]16, wherein said FIFO queues of one of said host system and said remote system include a high priority FIFO queue provided to queue commands for normal traffic, and another FIFO queue provided to queue data for data movement operations.

13. (Currently Amended) A network arrangement as claimed in claim [[10]]16, wherein said data is to be transmitted from said host system to said remote system in groups of cells with each cell having a header utilized to indicate whether the cell is transmitted in a priority order.

14. (Previously Presented) A network arrangement as claimed in claim 13, wherein each of said host system and said remote system comprises one or more channel adapters configured with a multiplexing function based on a priority order to multiplex and transmit back to back cells of the same priority from multiple FIFO queues through assigned control or data channels.

15. (Currently Amended) A network arrangement as claimed in claim [[10]]16, wherein said data is spread between multiple data channels to prioritize data processing while concomitantly to decrease latency and increase bandwidth during said data movement operations.

16. (Currently Amended) A network arrangement comprising:
a host system;
at least one remote system;
a switch fabric comprising a plurality of different switches which interconnect said host system to said remote system along different control and data channels for data movement operations;
said host system comprising multiple first-in, first-out (FIFO) queues arranged for high priority to low priority data movement operations; and
said remote system comprising multiple first-in, first-out (FIFO) queues arranged in correspondence with said host system multiple FIFO queues for high priority to low priority data movement operations; and
an I/O transaction to be accomplished by one or more control channels and data channels created to move commands and data separately between said host system and said remote system during said data movement operations, in the order from high priority to low priority;
~~A network arrangement as claimed in claim 10, wherein said host system and said remote system [[are]] being channel endpoints of the network arrangement implemented in compliance with the “Next Generation Input/Output (NGIO) Specification”.~~

17. (Currently Amended) A network arrangement as claimed in claim [[10]]16, wherein said multiple control and data channels are directly supported by the “*Virtual Interface (VI) Architecture Specification*” and the “*Next Generation Input/Output (NGIO) Specification*” for multiple priorities of traffic to allow for varying types of information to pass between said host system and said remote system with varying precedence.

18. (Currently Amended) A method comprising:

establishing one or more control channels and one or more data channels between a first plurality of first-in, first-out (FIFO) queues in a source node and a second plurality of FIFO queues in a destination node for transferring commands that describe data movement operations from said source node to said destination node and for moving data from said source node to said destination node, said second plurality of FIFO queues arranged in correspondence with said first plurality of FIFO queues;

assigning a logical priority to each control channel for transferring high priority commands to move across the control channel before low priority commands during said data movement operations; and

transferring, at said source node, data in groups of cells to said destination node along the data ~~channel~~channel;

said source node and said destination node being channel endpoints in a network implemented in compliance with the “*Next Generation Input/Output (NGIO) Specification*”.

19. (Original) A method as claimed in claim 18, further comprising:
assigning a logical priority to each data channel for high priority data to move
across the data channel before low priority data during said data movement operations;
and
moving, at said source node, high priority data in groups of cells to said
destination node along the data channel before low priority data during said data
movement operations.

20. (Original) A method as claimed in claim 18, wherein said data is
transmitted from said source node to said destination in groups of cells with each cell
having a header utilized for indicating whether the cell is transmitted in a priority order.

21. (Currently Amended) A node comprising:

a first plurality of first-in, first-out (FIFO) queues arranged for high priority to low priority data movement operations; and

an interface to operatively couple said node to another node by multiple control and data channels, said first plurality of FIFO queues being arranged to correspond with a second plurality of FIFO queues in said another node, such that an I/O transaction is to be accomplished, by one or more control channels and data channels created to move commands and data separately between said node and said another node during said data movement operations, in order from high priority to low priority; priority;

said node and said another node being channel endpoints of a network implemented in compliance with the “*Next Generation Input/Output (NGIO) Specification*”.

22. (Canceled)

23. (Canceled)

24. (New) The node of claim 21, wherein said multiple control channels are used to prioritize command processing, and each control channel is assigned with a different priority by one of the nodes that is en-queuing the commands to be executed based on the quality of service desired.

25. (New) The node of claim 21, wherein said FIFO queues of one of said node and said another node include a high priority FIFO queue provided to queue commands for normal traffic, and another FIFO queue provided to queue data for data movement operations.
